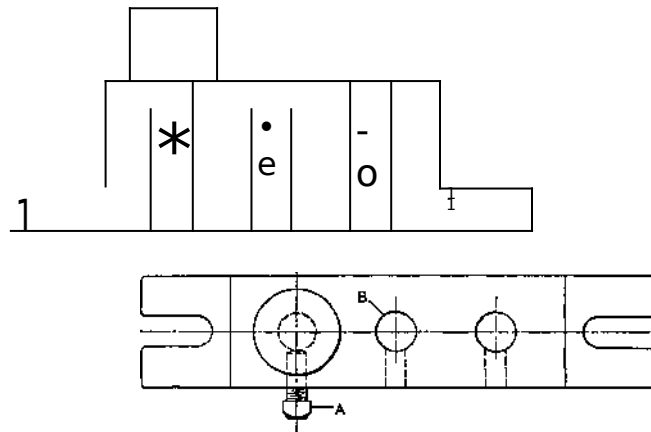


Common Defects in Jig Design.  
— The first consideration of the jig designer should be to determine what degree of accuracy is essential in the part that is to be produced, and also whether absolute interchangeability is necessary. This information will be a guide for the economical production of the jig. The designer must also consider any operations which are to be performed on the work prior to the one for which the jig under consideration is intended; for while this preliminary machining may not need to be accurately done, inaccuracy or uniformity may result in improperly locating the work in the next jig,



**Fig. 28. Defective Design of Fixture for Holding Piece shown in Fig. 27**

which should be so designed as to locate the part with the required accuracy.

The locating points of any jig should be such as to allow as wide a range of inaccuracy on any preceding operation as is compatible in the part. For

example, if the part has to be turned to, say, a limit of 0.001 inch, it will require more skill and time than if a limit of 0.005 inch is allowable. Again, as far as practicable, the portion of the work that requires to be the most accurate should be used in locating it in the jig for the succeeding operation. Often a surface is selected to locate from, which, in consequence, must be machined to an accurate limit, when accuracy otherwise would be unnecessary. This, of